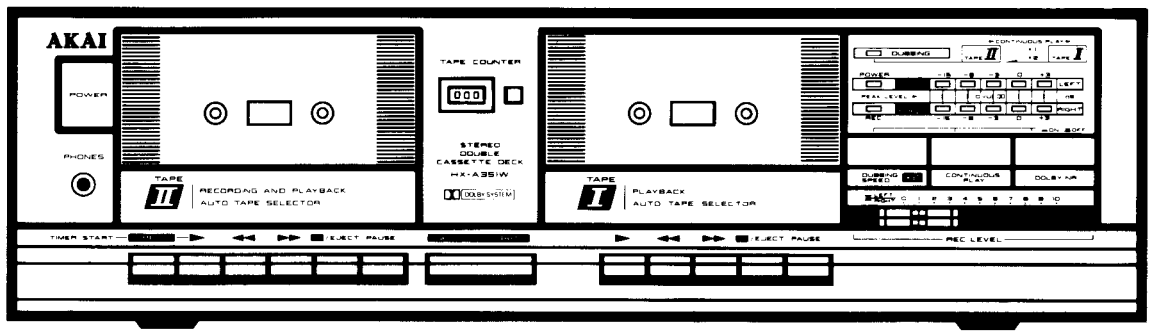
HX-A351W

AKAI SERVICE MANUAL



STEREO DOUBLE CASSETTE DECK

MODEL HX-A351W

SPECIFICATIONS

Track system	4 track 2 channel stereo	
Heads	Tape I	HD head for recording and playback ×1 Erase head ×1
	Tape II	HD head for playback ×1
Motors	Tape I	Electronically speed controlled DC motor ×1
	Tape II	Electronically speed controlled DC motor ×1
Wow & flutter	0.09% WRMS, 0.16% (DIN)	
Frequency response	Normal	30 Hz to 15,000 Hz ±3 dB
	CrO_2	30 Hz to 15,000 Hz ±3 dB
	Metal	30 Hz to 16,000 Hz ±3 dB
S/N (Metal)	56 dB Dolby NR switch ON: Improves up to 5 dB at 1 kHz, 10 dB above 5 kHz	
Harmonic distortion	0.8% (Metal)	

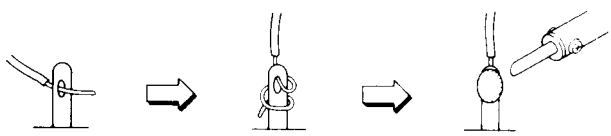
Input sensitivity/Impedance	LINE 70 mV/47 kohms
Output level/Impedance	LINE 388 mV/1 kohms PHONES 0.3 mW
Power requirements	120 V, 60 Hz for USA & Canada 220 V, 50 Hz for Europe except UK 240 V, 50 Hz for UK & Australia 110 V/120 V/220 V/240 V, 50 Hz/60 Hz convertible for other countries
Dimensions	440 (W) ×123 (H) ×279 (D) mm (17.3 ×4.8 ×11.0 inches)
Weight	4.0 kg (8.8 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locatoins.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 M ohms. but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be headphone jacks line-in-out jacks etc. more than 2.2 M ohms (ground terminals, microphone jacks).

★INFORMATION

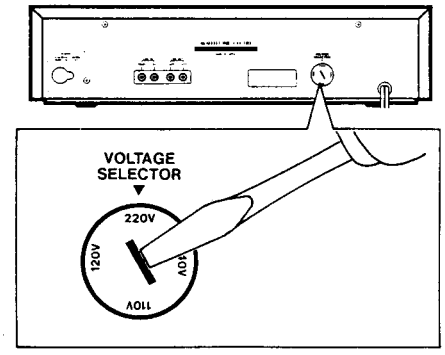
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
[A]	USA
[B]	UK
[C]	Canada
[E]	Europe (except UK)
[J]	Japan
[S]	Australia
[V]	W. Germany only
[U]	Universal Area
[Y*]	Custom version

VOLTAGE CONVERSION ([U] Model only)

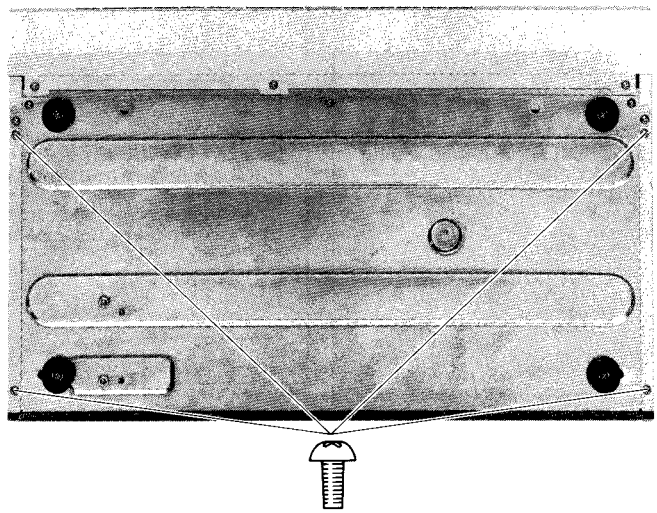
Befor connecting the power cord. SET the VOLTAGE SELECTOR located on the rear panel with a screwdriver so that the correct voltage is indicated.

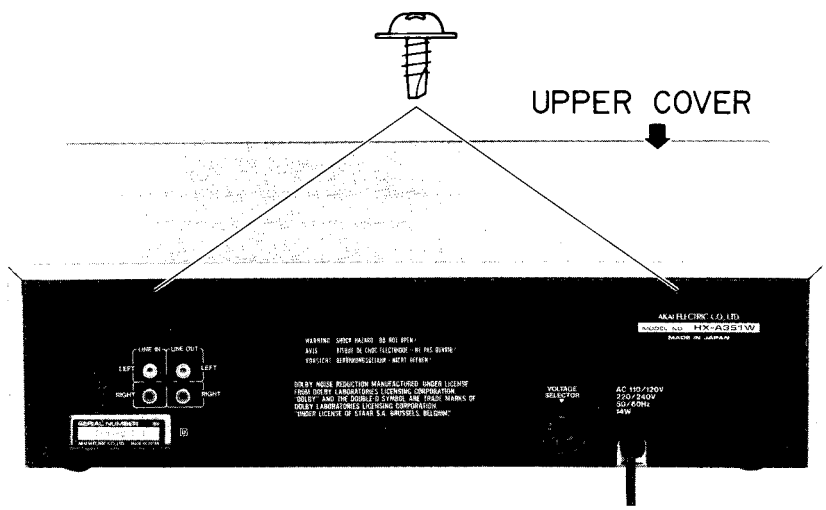


I. DISMANTLING OF UNIT

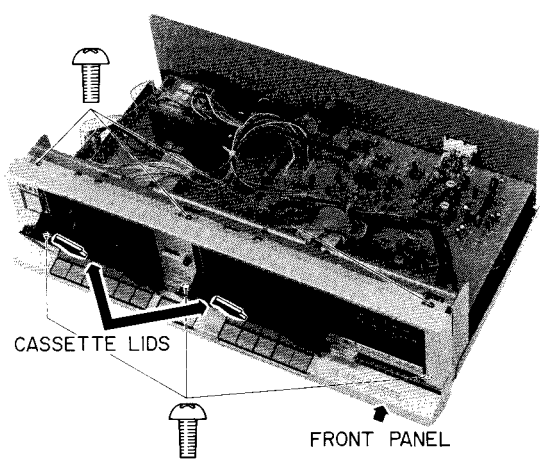
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

1 REMOVAL UPPER COVER





2 REMOVAL CASSETTE LID & FRONT PANEL



* Remove the cassette lids first then remove the front panel

II. CONTROLS

REC indicator
Indicateur d'enregistrement (**REC**)

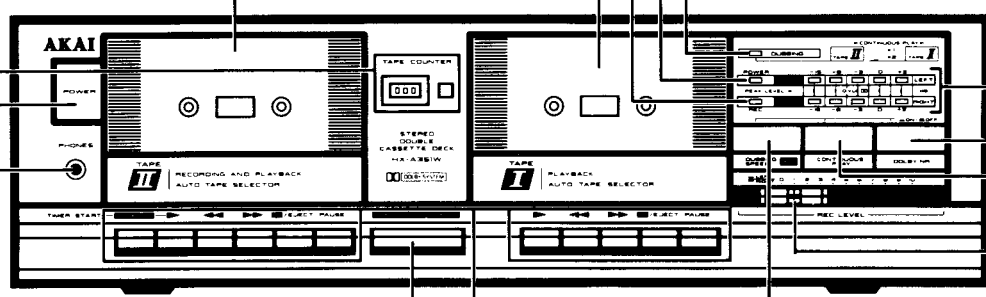
TAPE COUNTER and reset button for TAPE II only
Compteur de bande (**TAPE COUNTER**) et touche de réinitialisation compteur, uniquement pour le magnétocassette II (**TAPE II**).

POWER indicator
Indicateur de l'alimentation (**POWER**)

DUBBING indicator
Indicateur de copie (**DUBBING**)

Cassette lids and holders
Couvercles et compartiments de cassette

PEAK LEVEL METER
Changes from green to red above 0 dB
Compteur de niveau de crête (**PEAK LEVEL METER**).
Passe du vert au rouge au-dessus de 0 dB.



PHONES jack
Jack de casque (**PHONES**)

POWER button
Touche d'alimentation (**POWER**)

ONE TOUCH DUBBING button
Touche de copie à pression unique (**ONE TOUCH DUBBING**)

Tape transport buttons (PLAY (▶), STOP (■)/ EJECT, REC, PAUSE, F.FWD (▶▶), REW (◀◀), and TIMER START)
Touches de transport de la bande (reproduction (▶), arrêt/éjection (■/**EJECT**), enregistrement (**REC**), pause (**PAUSE**), avance rapide (▶▶), retour (◀◀), démarrage de minuterie (**TIMER START**)).

LEFT and RIGHT REC LEVEL controls
To control the recording level during normal recording from an input source
Commandes du niveau d'enregistrement (**REC LEVEL**) (gauche et droite).
Pour contrôler le niveau d'enregistrement durant un enregistrement normal d'une source d'entrée.

CONTINUOUS PLAY button
Touche de reproduction continue (**CONTINUOUS PLAY**)

DOLBY NR selector
Commutateur Dolby NR (**DOLBY NR**)

DUBBING SPEED × 2 button
Depress for high speed dubbing
Touche de vitesse de doublage de bande (**DUBBING SPEED × 2**).
Appuyez pour la copie à vitesse rapide.

III. PRINCIPAL PARTS LOCATION

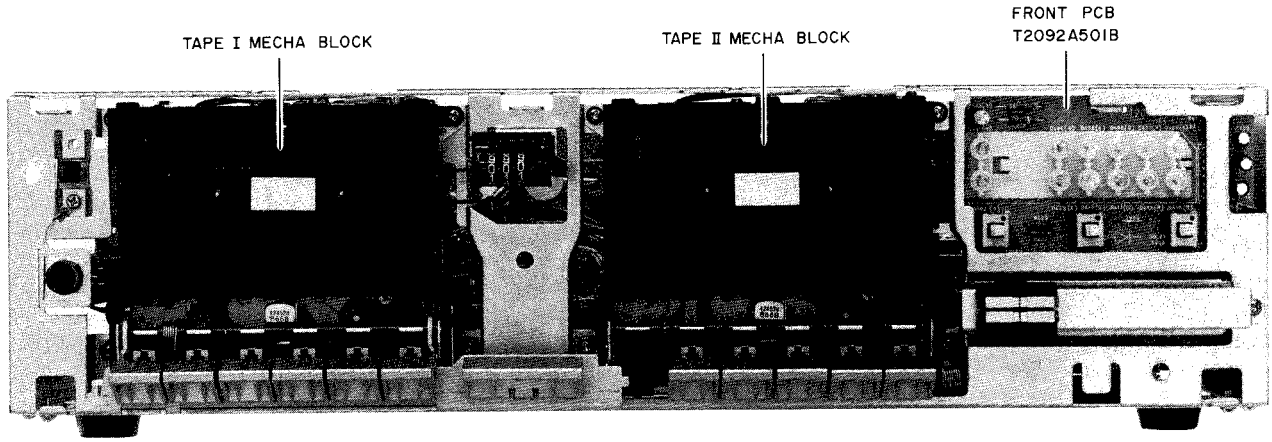


Fig. 3-1 Front View

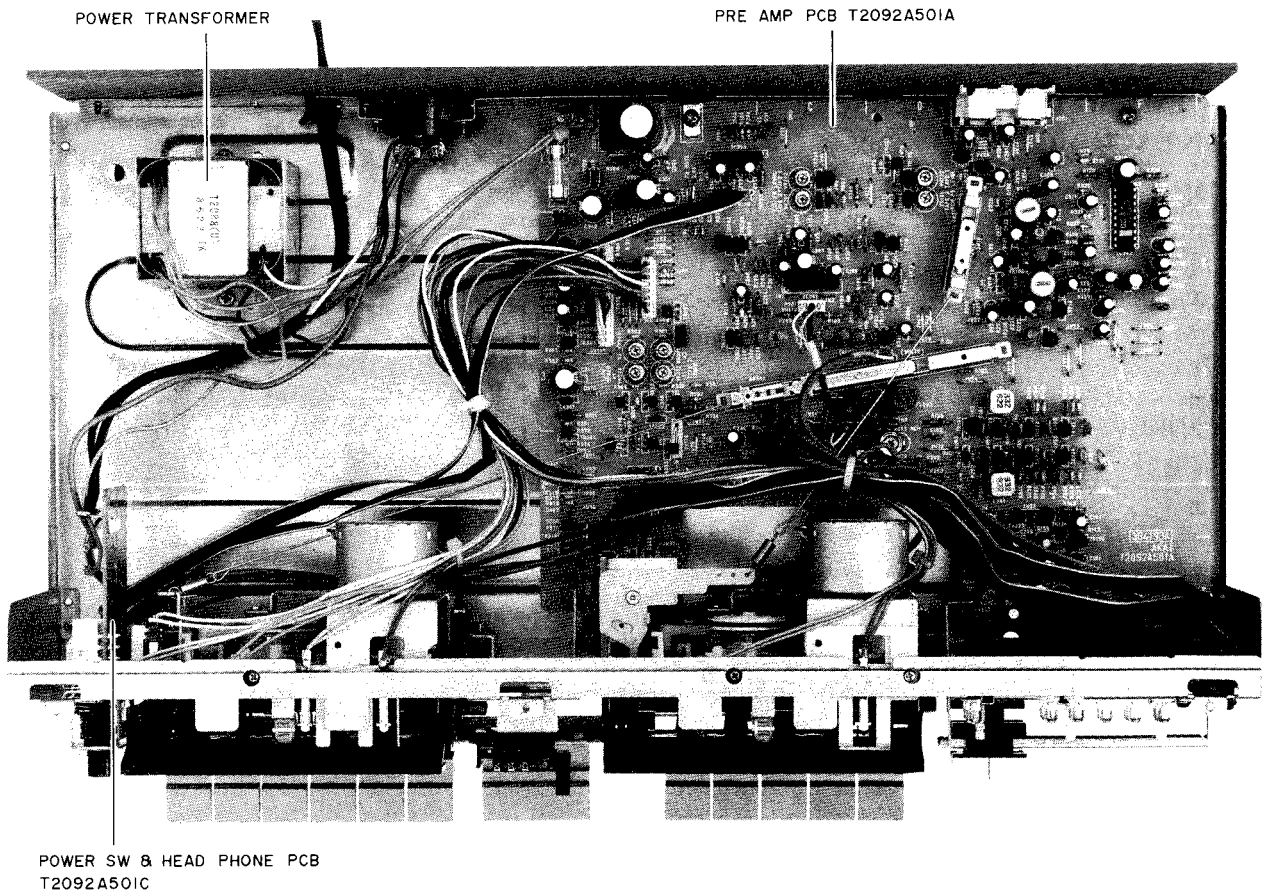


Fig. 3-2 Top View

IV. MECHANICAL ADJUSTMENT

4-1. PINCH ROLLER PRESSURE MEASUREMENT

Put in PLAY mode. Push pinch roller arm down with the spring gauge, push the pinch Roller 1 to 2mm away from the Capstan and release slowly.
Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate Specified contact pressure measurement of 200 to 400 grm. If there is no measurement obrained, replace the pinch Roller spring.

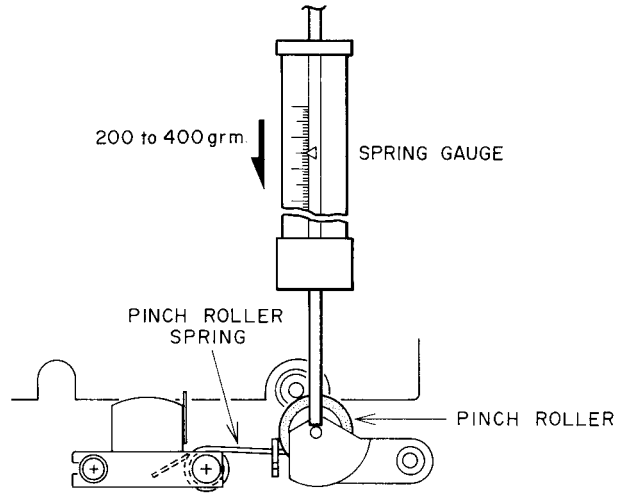


Fig. 4-1

4-2. WINDING TORQUE MEASUREMENT IN EACH MODE

Insert cassette torque meter (AJ-751179) and measure in each mode. For Fast Forward and Rewind, measure at the end of tape when the tape has stopped running.
PLAY Mode
Take up Torque: 35 to 75 grm-cm
Back tension torque: 1 to 6 grm-cm
FAST FORWARD, REWIND mode
Take up Torque: 70 to 160 grm-cm

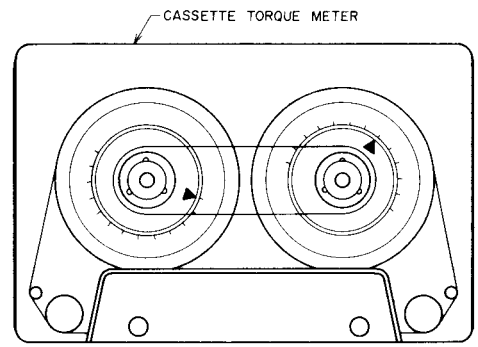


Fig. 4-2

4-3. REC/PB HEAD AZIMUTH ADJUSTMENT

1) Remove an azimuth cover.
2) Play Back a 10 kHz Azimuth Alignment Tape (AT-750778) and Adjust the Azimuth Alignment Screw, until the output levels of both channels are maximum.
3) After Adjustment, Paintlock the Azimuth Alignment Screw.

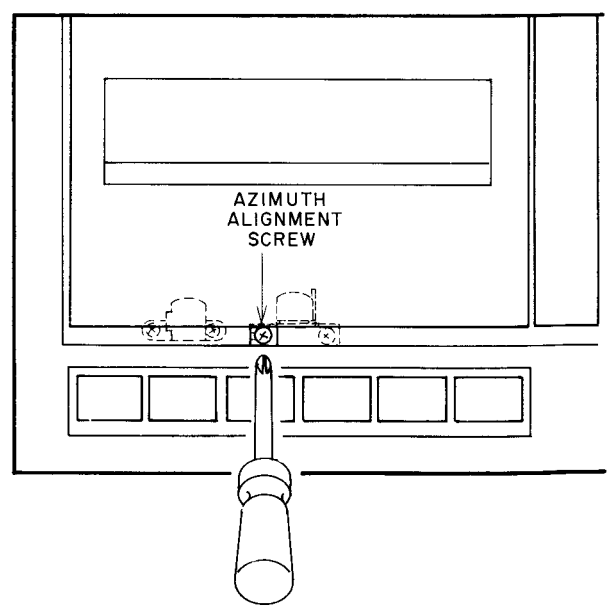


Fig. 4-3

V. PRE-AMP PCB ADJUSTMENT

STEP	ADJUSTMENT ITEM
1.	TEST TAPE, SUPPLY SIGNAL
2.	MODE
3.	ADJUSTMENT PARTS
4.	RESULT
5.	REMARKS

5	PB LEVEL (TAPE II)
1.	315Hz (AT750773)
2.	PB
3.	VR102 (Rch), VR202 (Lch)
4.	−6.0 ± 0.2 dBm

6	PB LEVEL (TAPE I)
1.	315Hz (AT750773)
2.	PB
3.	VR101 (Rch), VR201 (Lch)
4.	−6.0 ± 0.2dBm

2	TAPE SPEED (TAPE I)
1.	3150Hz (AT751263)
2.	DOUBLE SPEED
3.	VR301
4.	6255Hz ± 5Hz
5.	SHORT THE JUMPER WIRE (JW110). SPEED SELECTOR SW ON

1	TAPE SPEED (TAPE II)
1.	3150Hz (AT751263)
2.	DOUBLE SPEED
3.	VR303
4.	6270Hz ± 5Hz
5.	SHORT THE JUMPER WIRE (JW110). SPEED SELECTOR SW ON

3	TAPE SPEED (TAPE II)
1.	3150Hz (AT751263)
2.	NORMAL PB SPEED
3.	VR304
4.	3140Hz ± 5Hz
5.	SPEED SELECTOR SW OFF CUT THE JUMPER WIRE

4	TAPE SPEED (TAPE I)
1.	3150Hz (AT751263)
2.	NORMAL PB SPEED
3.	VR302
4.	3125Hz ± 5Hz
5.	SPEED SELECTOR SW OFF CUT THE JUMPER WIRE

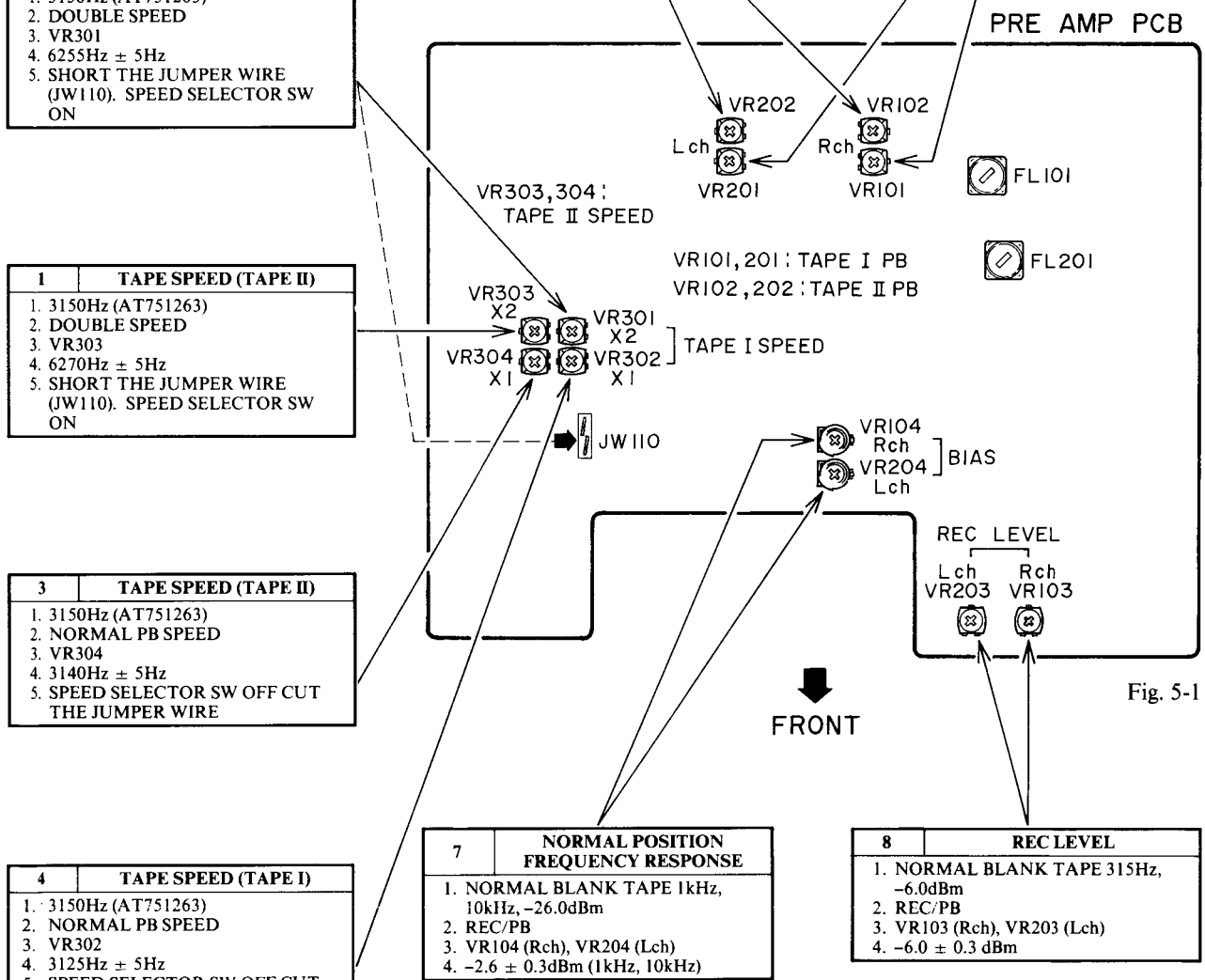


Fig. 5-1

7	NORMAL POSITION FREQUENCY RESPONSE
1.	NORMAL BLANK TAPE 1kHz, 10kHz, −26.0dBm
2.	REC/PB
3.	VR104 (Rch), VR204 (Lch)
4.	−2.6 ± 0.3dBm (1kHz, 10kHz)

8	REC LEVEL
1.	NORMAL BLANK TAPE 315Hz, −6.0dBm
2.	REC/PB
3.	VR103 (Rch), VR203 (Lch)
4.	−6.0 ± 0.3 dBm

NOTES: ALL ADJUSTMENT ARE WITHOUT DOLBY.
USE THE FOLLOWING CASSETTE MEASURING TAPES:
NORMAL TAPE : MACELL UDI C-60
CrO_2 TAPE : TDK SA C-60
METAL TAPE : TDK MA C-60

VI. PARTS LIST

ATTENTION

1. **When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.**
2. **Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.**
3. **Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.**

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	SP CS ANGLE ADJUST

- SP (Service Parts) Classification
- A small "x" indicates that this part is not shown in the Photo or Illustration.
- This number corresponds with the individual parts index number in that figure.
- This number corresponds with the Figure Number.

b) PC Board

6. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
6-C1B	EC-350949	C MMY V 223M 250DC [J]
6-C1C	EC-338397	C MMY V 223M 125AC [C,A]
6-X1	EI-318384	OSC X'TAL NC-18C

- Symbols for primary destination
  - [A]: AAL(U.S.A.) [S]: SAA(Australia)
  - [B]: BEAB(England) [U]: U/T(Universal Area)
  - [C]: CSA(Canada) [V]: VDE(W. Germany)
  - [E]: CEE(Europe) [Y]: Custom Version
  - [J]: JPN(Japan)
- SP (Service Parts) Classification
- These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

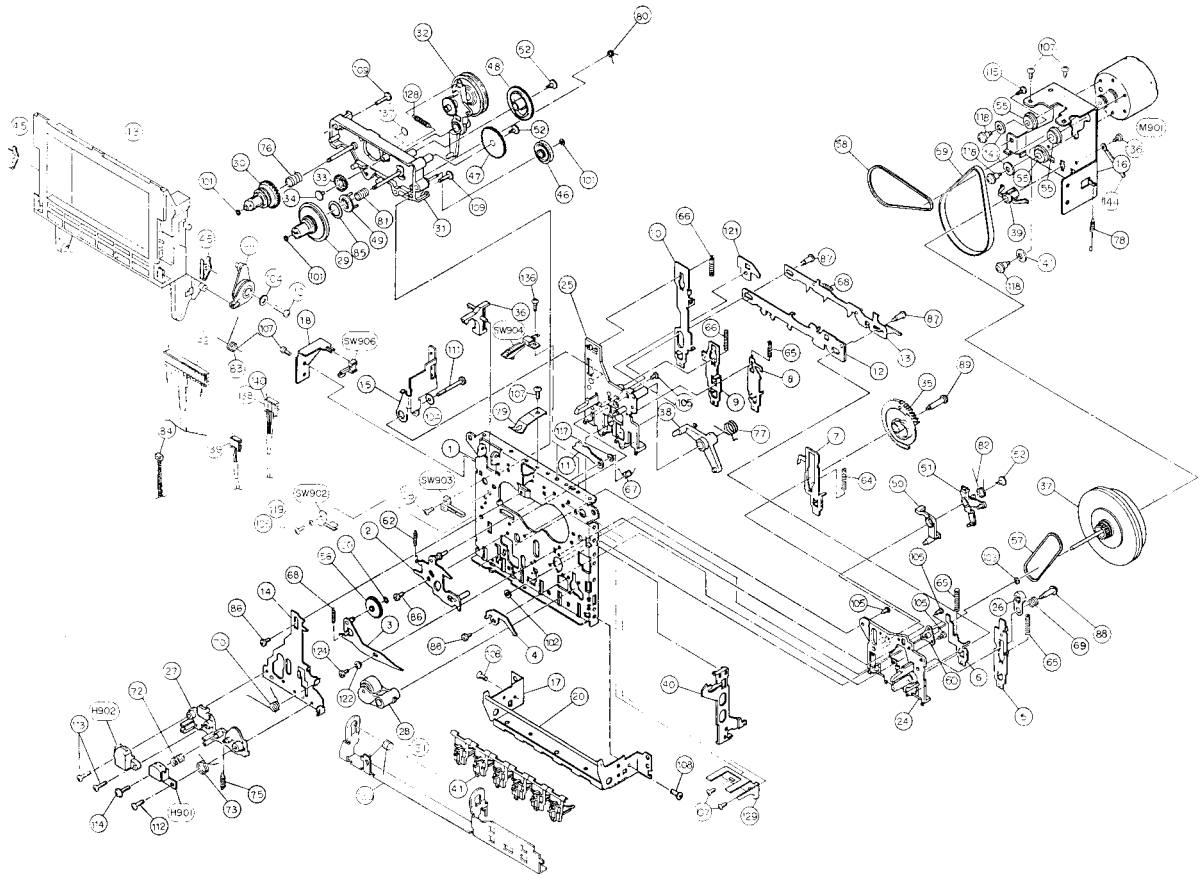
⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT

RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.		PART NO.	DESCRIPTION
1	N	BB-364177-B	MECHA AKI-103FMF (2)
2	N	BB-364178-C	MECHA AKI-102FMF (1)
3		BL-712799	PINCH ROLLER ARM ASSY
4		BM-715942	MOTOR BLK W/PULLEY EG510KD-2B D0.3W
5		BR-715919	SUPPLY REEL TABLE BLK HX-M10
6		BR-715918	TAKE-UP REEL TABLE BLK HX-M10
7		BT-362581	⚠ TRANS POWER T2088 (C, A)
8		BT-362582	⚠ TRANS POWER T2088 (E,V)
9		BT-362580	⚠ TRANS POWER T2088 (U)
10		ED-330319	⚠ D SILICON DBA10B 100/1.0A
11		ED-357754	⚠ D SILICON DS135D 200/1.0A
12		ED-349662	⚠ D SILICON DS135E-FA6 F10 100/1.0A
13		ED-364197	D LED SLH-56MT3 GREEN
14		ED-364194	D LED SLH-56VT3 RED
15	N	ED-364196	D LED SLH-56YT3 YELLOW
16		ED-301911	D SILICON H DS448
17		ED-344280	D SILICON H GMA-01-FY2 F05
18		ED-324014	D ZENER H HZ11 B1
19		ED-337267	D ZENER H HZ4 A1
20		EF-355226	⚠ FUSE BET T 1.00A 250V
21		EF-341264	⚠ FUSE GGS A 125V 1.60A
22		EF-623103	⚠ FUSE SEMKO T 1.00A 250V
23		EH-364198	FILTER DOLBY 42B-5070-02
24		EI-361561	IC BA3402SP
25		EI-347634	IC HA12045
26	N	EI-337228	IC M5218L
27		EO-356809	COIL FIX 1 100Z-121 100.00KC
28		EO-349589	COIL OSC 1 32-5016-12
29		ER-200926	⚠ R FUSE ERD2FC 1/4W 27ROG
30		ES-358646	⚠ SW PUSH SUL121S 1-012-02N
31		ES-359606	⚠ SW SELECTOR (U)
32		ES-716680	SW LEAF LSA-1119G
33		ES-713179	SW LEAF LSA-1123-37
34	N	ES-715944	SW LEAF LSA-1132EAU
35		ES-749290	SW LEAF LSB-1123
36		ES-363893	SW PUSH SPEC12
37		ES-361562	SW SLIDE SSCK1C 1-12-02
38		ES-361564	SW SLIDE T2088
39		ET-308472	TR 2SA1115 E,F,G F05
40		ET-308977	TR 2SC2274K F F05
41		ET-349705	TR 2SC2320 E,F,G
42		ET-308141	TR 2SC2603 G F05
43		ET-349272	TR 2SC3242A E,F F05
44		ET-349606	TR 2SC3382 T,U F05
45		ET-349366	TR 2SC3402 F05
46		ET-338324	TR 2SD1012-V H F05
47		ET-354083	TR 2SD1189 Q,R
48		ET-310148	TR 2SD612K E,F
49		EV-353557	R S-FIX H RVF6P01 3P 202
50		EV-337996	R S-FIX H RVF8P01 3P 104
51		EV-356024	R S-FIX RVF6P01 3P 104
52		EV-356024	R S-FIX RVF6P01 3P 104
53		EV-353558	R S-FIX RVF6P01 3P 203
54		EV-353556	R-FIX H RVF6P01 3P 102
55		EV-367044	VR SLIDE T2092 A503 × 2
56		HE-337047	HEAD E HAJAB3040A C
57		HP-712824	HEAD R/P HY424528 SVK
58		MB-712818	BELT AUTO
59		MB-715939	BELT CAPSTAN
60		MB-716683	BELT FR
61		BL-712799	PINCH ROLLER ARM ASSY
62		BM-715942	MOTOR BLK W/PULLEY EG510KD-2B D0.3W
63		BR-715919	SUPPLY REEL TABLE BLK HX-M10
64		BR-715918	TAKE-UP REEL TABLE BLK HX-M10
65		BT-362581	⚠ TRANS POWER T2088 (C,A)
66		BT-362582	⚠ TRANS POWER T2088 (E,V)
67		BT-362580	⚠ TRANS POWER T2088 (U)
68		ED-330319	⚠ D SILICON DBA10B 100/1.0A
69		ED-357754	⚠ D SILICON DS135D 200/1.0A
70		ED-349662	⚠ D SILICON DS135E-FA6 F10 100/1.0A
71		ED-364197	D LED SLH-56MT3 GREEN
72		ED-364194	D LED SLH-56VT3 RED
73	N	ED-364196	D LED SLH-56YT3 YELLOW
74		ED-301911	D SILICON H DS448
75		ED-344280	D SILICON H GMA-01-FY2 F05
76		ED-324014	D ZENER H HZ11 B1
77		ED-337267	D ZENER H HZ4 A1
78		EF-355226	⚠ FUSE BET T 1.00A 250V
79		EF-341264	⚠ FUSE GGS A 125V 1.60A
80		EF-623103	⚠ FUSE SEMKO T 1.00A 250V
81		EH-364198	FILTER DOLBY 42B-5070-02
82		EI-361561	IC BA3402SP
83		EI-347634	IC HA12045
84	N	EI-337228	IC M5218L
85		EO-356809	COIL FIX 1 100z-121 100.00KC
86		EO-349589	COIL OSC 1 32-5016-12
87		ER-200926	⚠ R FUSE ERD2FC 1/4W 27ROG
88		ES-358646	⚠ SW PUSH SUL121S 1-012-02N
89		ES-716680	SW LEAF LSA-1119G
90		ES-713179	SW LEAF LSA-1123-37
91	N	ES-715944	SW LEAF LSA-1132EAU
92		ES-749290	SW LEAF LSB-1123
93		ES-363893	SW PUSH SPEC12
94		ES-361562	SW SLIDE SSCK1C 1-12-02
95		ES-361564	SW SLIDE T2088
96		ET-308472	TR 2SA1115 E,F,G F05
97		ET-308977	TR 2SC2274K F F05
98		ET-349705	TR 2SC2320 E,F,G
99		ET-308141	TR 2SC2603 G F05
100		ET-349272	TR 2SC3242A E,F F05
101		ET-349606	TR 2SC3382 T,U F05
102		ET-349366	TR 2SC3402 F05
103		ET-338324	TR 2SD1012-V H F05
104		ET-354083	TR 2SD1189 Q,R
105		ET-310148	TR 2SD612K E,F
106		EV-353557	R S-FIX H RVF6P01 3P 202
107		EV-337996	R S-FIX RVF8P01 3P 104
108		EV-356024	R S-FIX RVF6P01 3P 104
109		EV-356024	R S-FIX RVF6P01 3P 104
110		EV-353558	R S-FIX RVF6P01 3P 203
111		EV-353556	R-FIX H RVF6P01 3P 102
112		EV-367044	VR SLIDE T2092 A503×2
113		HE-337047	HEAD E HAJAB3040A C
114		HP-712824	HEAD R/P HY424528 SVK
115		MB-712818	BELT AUTO
116		MB-715939	BELT CAPSTAN
117		MB-716683	BELT FR

MECHA (REC/PB) BLOCK

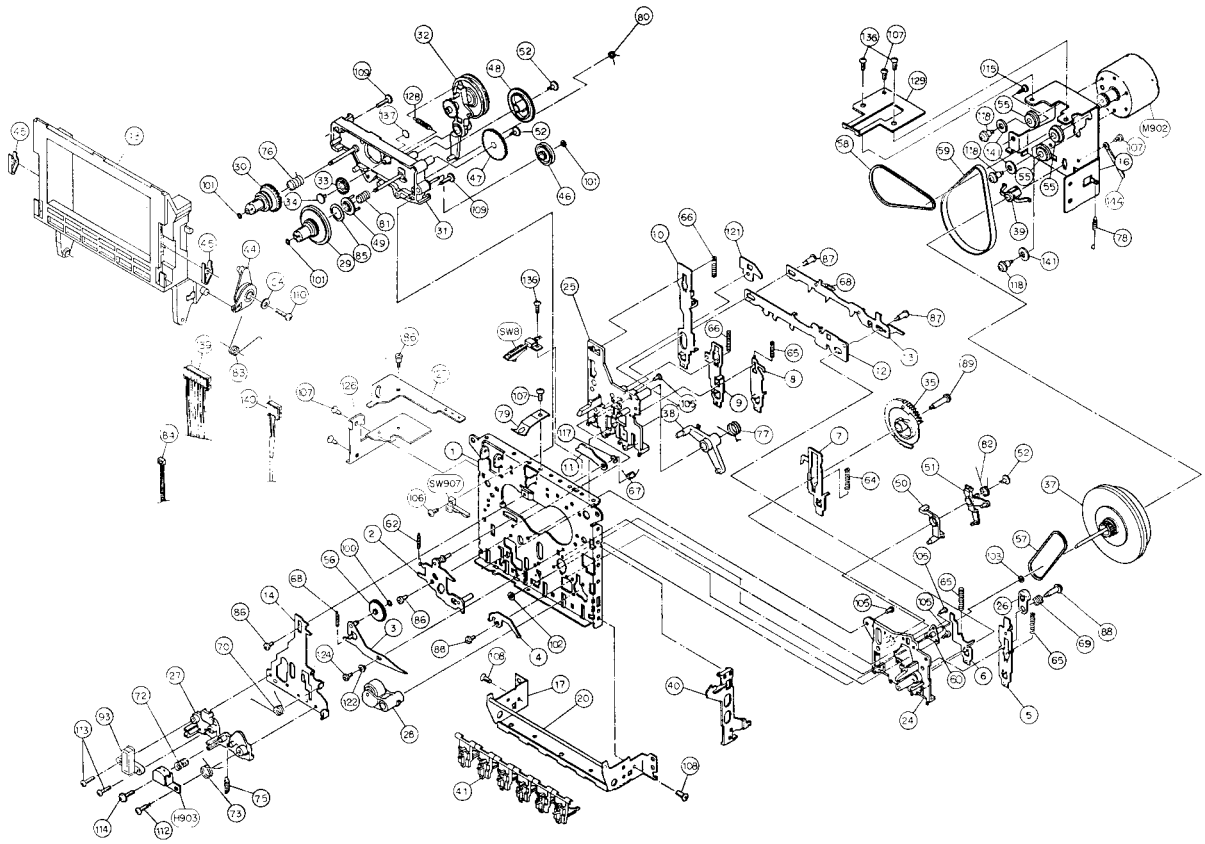


1. MECHA (REC/PB) BLOCK

REF. NO.	PART NO.	DESCRIPTION
1-1	BB-364178-C	MECHA AKI-102FMF (1)
1-26	MZ-716171	CAM PAUSE
1-27	HZ-716172	BASE HEAD
1-28	BL-712799	PINCH ROLLER ARM ASSY
1-29	BR-715918	TAKE-UP REEL TABLE BLK HX-M10
1-30	BR-715919	SUPPLY REEL TABLE BLK HX-M10
1-32	MI-715935	CLUTCH ARM ASSY
1-33	MZ-712804	GEAR FF
1-34	MZ-749256	BUSH
1-35	MZ-711710	GEAR C
1-36	ML-712806	SENSOR REC
1-37	BF-712807	FLYWHEEL ASSY
1-38	ML-716175	ARM LOCK (H)
1-39	MZ-712808	HOLDER CAPSTAN
1-40	ML-712809	LEVER EJECT
1-41	SB-716178	BUTTON LEVER
1-43	TC-712810	LID FRAME
1-44	TC-712811	DAMPER ASSY
1-45	ZG-712816	CLAMP CASSETTE
1-46	MI-712812	PULLEY AUTO
1-47	MZ-712813	GEAR AUTO
1-48	MZ-712814	GEAR CAM AUTO
1-49	MI-715920	CLUTCH AUTO
1-50	ML-716179	ARM AUTO [B]
1-51	ML-716180	ARM AUTO LOCK
1-52	ZW-716181	BUSH
1-55	MB-715936	CUSHION MOTOR
1-56	MI-712817	IDLER PLAY
1-57	MB-712818	BELT AUTO
1-58	MB-716683	BELT FR
1-59	MB-715939	BELT CAPSTAN
1-60	MZ-716577	MAIN CASE ASSY
1-62	ZG-716685	SP SHAFT ARM [C]
1-67	ZG-716187	SP REC LEVER
1-68	ZG-716188	SP CAM
1-69	ZG-716189	SP PAUSE CAM
1-70	ZG-716190	SP HEAD CHASSIS
1-72	ZG-716686	SP HEAD
1-73	ZG-716687	SP PINCH ROLLER
1-75	ZG-715940	SP HEAD RETURN
1-77	ZG-716579	SP LOCK ARM
1-78	ZG-716193	SP EJECT LEVER
1-79	ZG-712822	SP PACK
1-80	ZG-716194	SP AUTO SENSOR
1-81	ZG-716355	SP AUTO CLUTCH
1-82	ZG-716197	SP AUTO LOCK ARM
1-83	ZG-716688	SP HOLDER CASSETTE
1-85	TC-712823	FELT AUTO CLUTCH
1-87	ZS-715982	SCREW [B]
1-88	ZS-716203	SCREW SPECIAL [C]
1-89	ZS-716204	SCREW SPECIAL [D]
1-101	ZW-716206	PW17×035×025PSL
1-112	ZS-536488	BID20×08STL CMT
1-113	ZS-749293	BID20×09STL CMT TW
1-114	ZS-749293	BID20×09STL CMT TW
1-118	ZS-716576	SCREW SPECIAL MOTOR
1-128	ZG-715922	SP CLUTCH ARM
1-M901	BM-715942	MOTOR BLK W/PULLEY EG510KD-2B D0.3W
1-H901	HP-712824	HEAD R/P HY424528 SVK
1-H902	HE-337047	HEAD E HAJAB3040A C
1-SW902	ES-716680	SW LEAF LSA-1119G
1-SW903	ES-749290	SW LEAF LSB-1123
1-SW904,905	ES-715944	SW LEAF LSA-1132EAU
1-SW906	ES-713179	SW LEAF LSA-1123-37

Note: Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

MECHA (PB) BLOCK



2. MECHA (PB) BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1	BB-364177-B	MECHA AKI-103FMF (2)
2-26	MZ-716171	CAM PAUSE
2-27	HZ-716172	BASE HEAD
2-28	BL-712799	PINCH ROLLER ARM ASSY
2-29	BR-715918	TAKE-UP REEL TABLE BLK HX-M10
2-30	BR-715919	SUPPLY REEL TABLE BLK HX-M10
2-32	MI-715935	CLUTCH ARM ASSY
2-33	MZ-712804	GEAR FF
2-34	MZ-749256	BUSH
2-35	MZ-711710	GEAR C
2-37	BF-712807	FLYWHEEL ASSY
2-38	ML-716175	ARM LOCK (H)
2-39	MZ-712808	HOLDER CAPSTAN
2-40	ML-712809	LEVER EJECT
2-41	SB-716178	BUTTON LEVER
2-43	TC-712810	LID FRAME
2-44	TC-712811	DAMPER ASSY
2-45	ZG-712816	CLAMP CASSETTE
2-46	MI-712812	PULLEY AUTO
2-47	MZ-712813	GEAR AUTO
2-48	MZ-712814	GEAR CAM AUTO
2-49	MI-715920	CLUTCH AUTO
2-50	ML-716179	ARM AUTO [B]
2-51	ML-716180	ARM AUTO LOCK
2-52	ZW-716181	BUSH
2-55	MB-715936	CUSHION MOTOR
2-56	MI-712817	IDLER PLAY
2-57	MB-712818	BELT AUTO
2-58	MB-716683	BELT FR
2-59	MB-715939	BELT CAPSTAN
2-60	MZ-716577	MAIN CASE ASSY
2-62	ZG-716685	SP SHAFT ARM [C]

REF. NO.	PART NO.	DESCRIPTION
2-67	ZG-716187	SP REC LEVER
2-68	ZG-716188	SP CAM
2-69	ZG-716189	SP PAUSE CAM
2-70	ZG-716190	SP HEAD CHASSIS
2-72	ZG-716686	SP HEAD
2-73	ZG-716687	SP PINCH ROLLER
2-75	ZG-715940	SP HEAD RETURN
2-77	ZG-716579	SP LOCK ARM
2-78	ZG-716193	SP EJECT LEVER
2-79	ZG-712822	SP PACK
2-80	ZG-716194	SP AUTO SENSOR
2-81	ZG-716355	SP AUTO CLUTCH
2-82	ZG-716197	SP AUTO LOCK ARM
2-83	ZG-716688	SP HOLDER CASSETTE
2-85	TC-712823	FELT AUTO CLUTCH
2-87	ZS-715982	SCREW [B]
2-88	ZS-716203	SCREW SPECIAL [C]
2-89	ZS-716204	SCREW SPECIAL [D]
2-93	MS-715941	TAPE GUIDE
2-101	ZW-716206	PW17×035×025PSL
2-112	ZS-536488	BID20×08STL CMT
2-113,114	ZS-749293	BID20×09STL CMT TW
2-118	ZS-716576	SCREW SPECIAL MOTOR
2-128	ZG-715922	SP CLUTCH ARM
2-M902	BM-715942	MOTOR BLK W/PULLEY EG510KD-2B D0.3W
2-H903	HP-712824	HEAD R/P HY424528 SVK
2-SW907	ES-749290	SW LEAF LSB-1123
2-SW908	ES-715944	SW LEAF LSA-1132EAU

Note: Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

3. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
3-1	BA-T2092A020A	PC PRE AMP BLK HX-A351W

Note: PC PRE AMP BLK consists of PRE AMP PC BOARD, FRONT PC BOARD, HEAD PHONE PC BOARD, POWER SW PC BOARD.

4. PRE AMP PC BOARD

REF. NO.	PART NO.	DESCRIPTION
	PRE AMP PC BOARD	
4-C101	EC-306017	C STY F05 CQ09S 221J 50DC
4-C102	EC-324109	C STY V S05 CQFS 181J 50DC
4-C103	EC-334071	C STY V F05 CQFS 391J 50DC
4-C120	EC-315768	C EC V F05 AS1 R47M 50DC
4-C121	EC-562678	C STY V 751J 50DC
4-C123	EC-314992	C STY S05 CQFS 681J 50DC
4-C201	EC-306017	C STY V F05 CQ09S 221J 50DC
4-C202	EC-324109	C STY V S05 CQFS 181J 50DC
4-C203	EC-334071	C STY V F05 CQ09S 391J 50DC
4-C220	EC-315768	C EC V F05 AS1 R47M 50DC
4-C221	EC-562678	C STY V 751J 50DC
4-C223	EC-314992	C STY V S05 CQFS 681J 50DC
4-C330	EC-349631	C PP V F10 ECQ-F 182J 630DC
4-C347	EC-324662	C EC V CUT AS1 222M 25DC
4-D301 to 305	ED-344280	D SILICON H GMA-01-FY2 F05
4-D306	ED-301911	D SILICON H DS448
4-D307	ED-344280	D SILICON H GMA-01-FY2 F05
4-D308 to 314	ED-344280	D SILICON H GMA-01-FY2 F05
4-D315	ED-349662	⚠ D SILICON DS135E-FA6 F10 100/1.0A
4-D316,317	ED-344280	D SILICON H GMA-01-FY2 F05
4-D318	ED-330319	⚠ D SILICON DBA10B 100/1.0A
4-D319,320	ED-357754	⚠ D SILICON DS135D 200/1.0A
4-D321	ED-324014	D ZENER H HZ11 B1
4-D322	ED-337267	D ZENER H HZ4 A1
4-D323	ED-344280	D SILICON H GAM-01-FY2 F05
4-FL101	EH-364198	FILTER DOLBY 42B-5070-02
4-FL102	EO-356809	COIL FIX 1 100Z-121 100.00KC
4-FL201	EH-364198	FILTER DOLBY 42B-5070-02
4-FL202	EO-356809	COIL FIX 1 100Z-121 100.00KC
4-FR301	ER-200926	⚠ R FUSE ERD2FC 1/4W 27ROG
4-IC301	EI-361561	IC BA3402SP
4-IC302	EI-347634	IC HA12045
4-IC303	EI-337228	IC M5218L
4-J301	EJ-336905	PIN J AJC-035-ACB P 4P
4-L101,201	EO-362180	COIL FIX 3 7141 TAP 822J/332J
4-SW301	ES-361562	SW SLIDE SSCK1C 1-12-02
4-SW302	ES-361564	SW SLIDE T2088
4-TR101 to 105	ET-349705	TR 2SC2320 E,F,G
4-TR106	ET-349606	TR 2SC3382 T,U F05
4-TR107,111, 120 to 123	ET-349705	TR 2SC2320 E,F,G
4-TR124	ET-338324	TR 2SD1012-V H F05
4-TR125, 201 to 205	ET-349705	TR 2SC2320 E,F,G
4-TR206	ET-349606	TR 2SC3382 T,U F05
4-TR207,210,211 220 to 223	ET-349705	TR 2SC2320 E,F,G
4-TR224	ET-338324	TR 2SD1012-V H F05
4-TR225	ET-349705	TR 2SC2320 E,F,G
4-TR301,311	ET-349366	TR 2SC3402 F05
4-TR320,321	ET-308977	TR 2SC2274K F F05
4-TR323	ET-349272	TR 2SC3242A E,F, F05
4-TR324,325	ET-349366	TR 2SC3402 F05
4-TR326	ET-349705	TR 2SC2320 E,F,G
4-TR327	ET-349366	TR 2SC3402 F05
4-TR328	ET-310148	TR 2SD612K E,F
4-TR329	ET-308141	TR 2SC2603 G F05
4-TR330,331	ET-308472	TR 2SA1115 E,F,G F05
4-TR332	ET-308141	TR 2SC2603 G F05
4-TR333,334	ET-349366	TR 2SC3402 F05
4-TR341,342	ET-308472	TR 2SA1115 E,F,G F05
4-TR343	ET-349705	TR 2SC2320 E,F,G
4-TR344 to 347	ET-349366	TR 2SC3402 F05
4-TR351	ET-354083	TR 2SD1189 Q,R
4-T301	EO-349589	COIL OSC 1 32-5016-12
4-VR101,102	EV-356024	R S-FIX RVF6P01 3P 104
4-VR103	EV-353558	R S-FIX RVF6P01 3P 203
4-VR104	EV-337996	R S-FIX H RVF8P01 3P 104
4-VR201,202	EV-356024	R S-FIX RVF6P01 3P 104
4-VR203	EV-353558	R S-FIX RVF6P01 3P 203
4-VR204	EV-337996	R S-FIX H RVF8P01 3P 104
4-VR301	EV-353557	R S-FIX H RVF6P01 3P 202
4-VR302	EV-353556	R-FIX H RVF6P01 3P 102
4-VR303	EV-353557	R S-FIX H RVF6P01 3P 202
4-VR304	EV-353556	R-FIX H RVF6P01 3P 102
4-F1A	EF-623103	⚠ FUSE SEMKO T 1.00A 250V [U,E,S]
4-F1B	EF-341264	⚠ FUSE GGS A 125V 1.60A [C,A]
4-F1C	EF-355226	⚠ FUSE BET T 1.00A 250V [B]

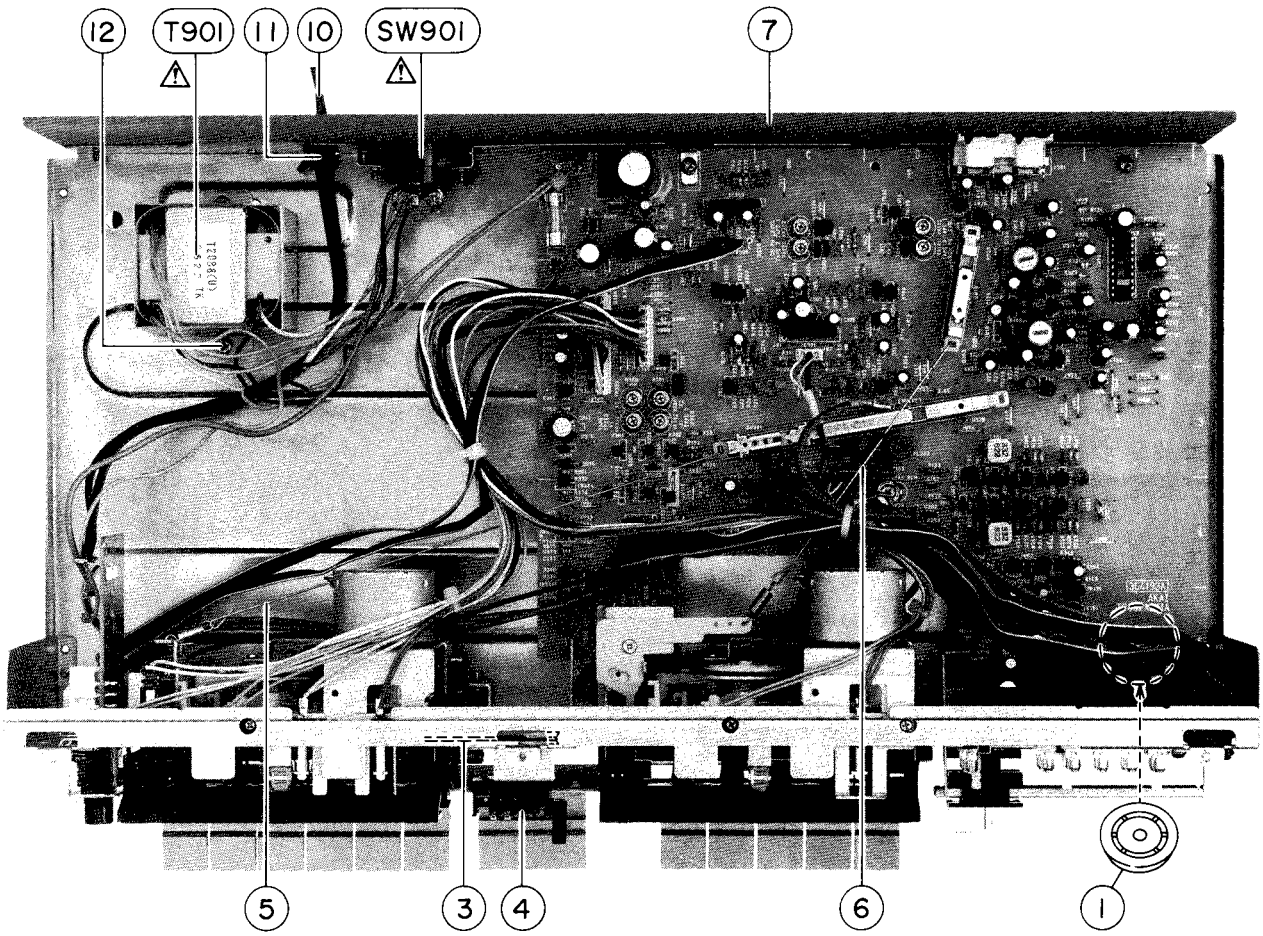
5. PRONT PC BOARD

REF. NO.	PART NO.	DESCRIPTION
5-D401,402	ED-364194	D LED SLH-56VT3 RED
5-D403	ED-364196	D LED SLH-56YT3 YELLOW
5-D404 to 406	ED-364197	D LED SLH-56MT3 GREEN
5-D407,408	ED-364194	D LED SLH-56VT3 RED
5-D409 to 411	ED-364197	D LED SLH-56MT3 GREEN
5-D412,413	ED-364194	D LED SLH-56VT3 RED
5-IC401	EI-355388	IC IR2E27
5-R407,408	ER-333616	R CB H S15 FS RDS 1/2W 151J
5-SW401 to 403	ES-363893	SW PUSH SPEC12
5-VR401	EV-367044	VR SLIDE VJ6014D PVN A503×2

6. POWER SW & HEAD PHONE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-J501	EJ-355012	PHONE J 3P HLJ0541-010 6.3
6-SW501	ES-358646	⚠ SW PUSH SUL121S 1-012-02N

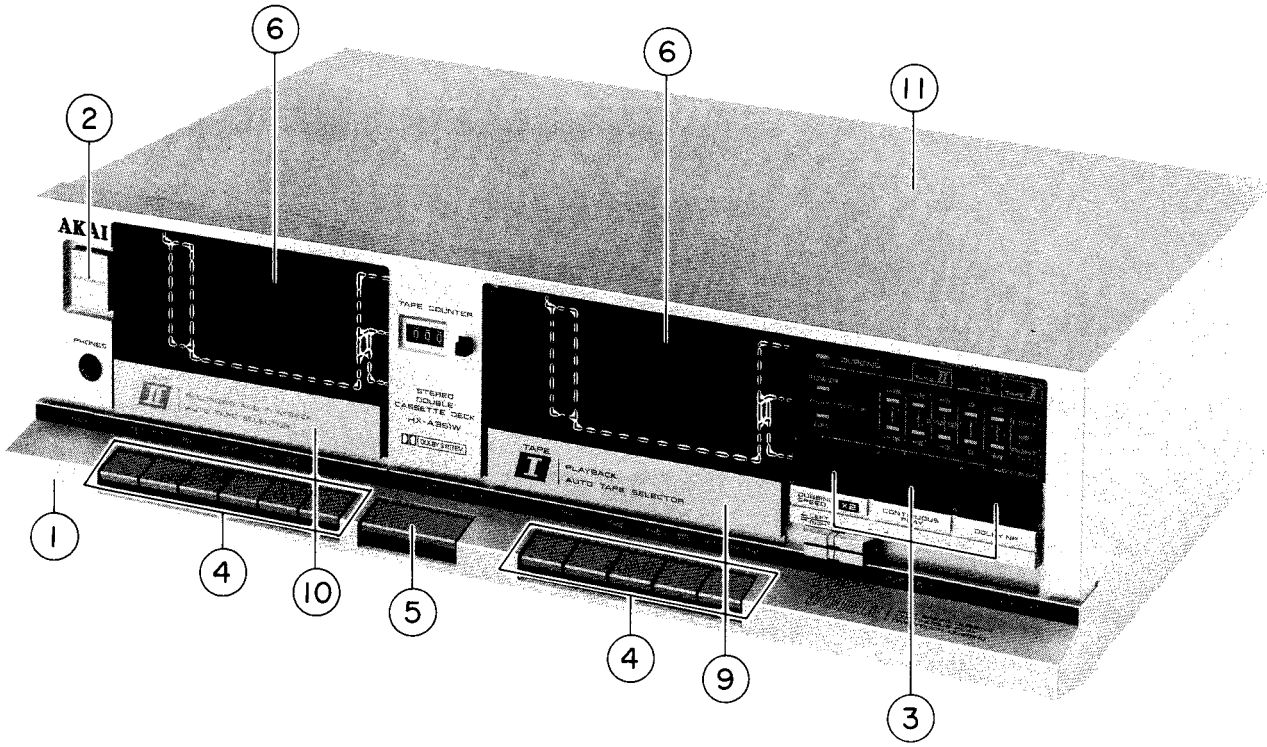
ASSEMBLY BLOCK



7. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
7-1	SA-202118	FOOT
7-2	ZS-356389	T2BR30×06STL CMT C080 (FOOT FIX)
7-3	MB-364112	BELT 08×D65.9 CRHS65
7-4	MC-357705	COUNTER MK395-058
7-5	MZ-364179	JOINT REC (JOINT REC)
7-6	MZ-364180	JOINT DUB (JOINT DUB)
7-7A	SP-364130A	PANEL REAR HX-A351W [U]
7-7B	SP-364130B	PANEL REAR HX-A351W [C,A]
7-7C	SP-364130C	PANEL REAR HX-A351W [E,V]
7-7D	SP-364130D	PANEL REAR HX-A351W [B,S]
7-8	ZS-352120	T2BR30×08STL BCM C080 (PANEL REAR FIX)
7-9	ZS-362242	PT BR30×10STL BCM (PANEL REAR FIX)
7-10A	EW-306428	⚠ AC CORD 2 CORES KP-700A, VFF U/T [U]
7-10B	EW-207742	⚠ AC CORD 2 CORES VM-0238, SPT-1 UC [C,A]
7-10C	EW-336923	⚠ AC CORD 2 CORES KP-419C, LTCE-2F EV [E]
7-10D	EW-346249	⚠ AC CORD 2 CORES LCFL2×0.75 B [B]
7-10E	EW-347898	⚠ AC CORD 2 CORES VM-0436, LCFL S [S]
7-11	EZ-631945	STRAIN RELIEF SR-4N-4
7-12	ZS-300519	ST PAN 40×08STL CMT (TRANS POWER FIX)
7-13	ZW-413188	N40STL CMT 1 (TRANS POWER FIX)
7-14	ZS-320906	ST BR30×06STL CMT (COVER UPPER FIX)
7-15x	EW-344151	CORD PR-61A PIN×2-PIN×2
7-T901A	BT-362580	⚠ TRANS POWER T2088 [U]
7-T901B	BT-362581	⚠ TRANS POWER T2088 [C,A]
7-T901C	BT-362582	⚠ TRANS POWER T2088 [C,A]
7-T901D	BT-362583	⚠ TRANS POWER T2088 [B,S]
7-SW901	ES-359606	⚠ SW SELECTOR 8T-41S0454 01-4 [U]
7-Sw501	ES-358646	⚠ SW PUSH SUL121S 1-012-02N

FINAL ASSEMBLY BLOCK



8. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	PANEL FRONT PART	
8-1	BD-B364109A	PANEL FRONT PART
8-1-B	BD-B364109B	PANEL FRONT-B PART (FOOT FIX)
	FINAL ASSEMBLY BLOCK	
8-2	SK-343017G	KNOB POWER
8-2-B	SK-343017F	KNOB POWER-B
8-3	SK-364114	KNOB FUNCTION (JOINT REC)
8-4	SK-364117A	KNOB OPERATION (JOINT DUB)
8-4-B	SK-364117B	KNOB OPERATION-B
8-5	SK-364115A	KNOB DUBBING
8-5-B	SK-364115B	KNOB DUB-B
8-6	SZ-364113	LID DECORATION PLATE
8-7	SZ-357722	REFLECTOR (PANEL REAR FIX)
8-8	SK-346104	KNOB REC PART (PANEL REAR FIX)
8-9	BD-364118A	LID PANEL (1)
8-9-B	BD-364118C	LID PANEL (1)-B
8-10	BD-364118B	LID PANEL (2)
8-10-B	BD-364118D	LID PANEL (2)-B
8-11	SP-351611A-A	COVER UPPER
8-11-B	SP-351611C-A	COVER UPPER-B

SYMBOL FOR COLOR VARIATION
NON: STANDARD COLOR
-B: BLACK

INDEX

HX-A351W

PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.	PART NO.	REF. NO.
BA-T2092A020A	3-1	EI-355388	5-IC401	EV-337996	4-VR104	SK-364117A	9-4
BB-364177-B	2-1	EI-361561	4-IC301	EV-337996	4-VR204	SK-364117B	9-4-B
BB-364178-C	1-1	EJ-336905	4-J301	EV-353556	4-VR302	SP-351611A-A	9-11
BD-B364109A	9-1	EJ-355012	6-J501	EV-353556	4-VR304	SP-351611C-A	9-11-B
BD-B364109B	9-1-B	EO-349589	4-T301	EV-353557	4-VR301	SP-364130A	8-7A
BD-364118A	9-9	EO-356809	4-FL102	EV-353557	4-VR303	SP-364130B	8-7B
BD-364118B	9-10	EO-356809	4-FL202	EV-353558	4-VR103	SP-364130C	8-7C
BD-364118C	9-9-B	EO-362180	4-L101	EV-353558	4-VR203	SP-364130D	8-7D
BD-364118D	9-10-B	EO-362180	4-L201	EV-356024	4-VR101	SZ-357722	9-7
BF-712807	1-37	ER-200926	4-FR301	EV-356024	4-VR102	SZ-364113	9-6
BF-712807	2-37	ER-333616	5-R407	EV-356024	4-VR201	TC-712810	1-43
BL-712799	1-28	ER-333616	5-R408	EV-356024	4-VR202	TC-712810	2-43
BL-712799	2-28	ES-358646	7-SW501	EV-367044	5-VR401	TC-712811	1-44
BM-715942	1-M901	ES-359606	8-SW901	EW-207742	8-10B	TC-712811	2-44
BM-715942	2-M902	ES-361562	4-SW301	EW-306428	8-10A	TC-712823	1-85
BR-715918	1-29	ES-361564	4-SW302	EW-336923	8-10C	TC-712823	2-85
BR-715918	2-29	ES-363893	5-SW401	EW-344151	8-15X	ZG-712816	1-45
BR-715919	1-30	ES-363893	5-SW402	EW-346249	8-10D	ZG-712816	2-45
BR-715919	2-30	ES-363893	5-SW403	EW-347898	8-10E	ZG-712822	1-79
BT-362580	8-T901A	ES-713179	1-SW906	EZ-631945	8-11	ZG-712822	2-79
BT-362581	8-T901B	ES-715944	1-SW905	HE-337047	1-H902	ZG-715922	1-128
BT-362582	8-T901C	ES-715944	1-SW904	HP-712824	1-H901	ZG-715922	2-128
BT-362583	8-T901D	ES-715944	2-SW908	HP-712824	2-H903	ZG-715940	1-75
EC-306017	4-C101	ES-716680	1-SW902	HZ-716172	1-27	ZG-715940	2-75
EC-306017	4-C201	ES-749290	1-SW903	HZ-716172	2-27	ZG-716187	1-67
EC-314992	4-C123	ES-749290	2-SW907	MB-364112	8-3	ZG-716187	2-67
EC-314992	4-C223	ET-308141	4-TR329	MB-712818	1-57	ZG-716188	1-68
EC-315768	4-C120	ET-308141	4-TR332	MB-712818	2-57	ZG-716188	2-68
EC-315768	4-C220	ET-308472	4-TR330	MB-715936	1-55	ZG-716189	1-69
EC-324109	4-C102	ET-308472	4-TR331	MB-715936	2-55	ZG-716189	2-69
EC-324109	4-C202	ET-308472	4-TR342	MB-715939	1-59	ZG-716190	1-70
EC-324662	4-C347	ET-308472	4-TR341	MB-715939	2-59	ZG-716190	2-70
EC-334071	4-C103	ET-308977	4-TR321	MB-716683	1-58	ZG-716193	1-78
EC-334071	4-C203	ET-308977	4-TR320	MB-716683	2-58	ZG-716193	2-78
EC-349631	4-C330	ET-310148	4-TR328	MC-357705	8-4	ZG-716194	1-80
EC-562678	4-C121	ET-338324	4-TR124	MI-712812	1-46	ZG-716194	2-80
EC-562678	4-C221	ET-338324	4-TR224	MI-712812	2-46	ZG-716197	1-82
ED-301911	4-D306	ET-349272	4-TR323	MI-712817	1-56	ZG-716197	2-82
ED-324014	4-D321	ET-349366	4-TR311	MI-712817	2-56	ZG-716355	1-81
ED-330319	4-D318	ET-349366	4-TR301	MI-715920	1-49	ZG-716355	2-81
ED-337267	4-D322	ET-349366	4-TR324	MI-715920	2-49	ZG-716579	1-77
ED-344280	4-D301	ET-349366	4-TR325	MI-715935	1-32	ZG-716579	2-77
ED-344280	4-D303	ET-349366	4-TR327	MI-715935	2-32	ZG-716685	1-62
ED-344280	4-D305	ET-349366	4-TR333	ML-712806	1-36	ZG-716685	2-62
ED-344280	4-D304	ET-349366	4-TR334	ML-712809	1-40	ZG-716686	1-72
ED-344280	4-D302	ET-349366	4-TR344	ML-712809	2-40	ZG-716686	2-72
ED-344280	4-D307	ET-349366	4-TR345	ML-716175	1-38	ZG-716687	1-73
ED-344280	4-D308	ET-349366	4-TR346	ML-716175	2-38	ZG-716687	2-73
ED-344280	4-D309	ET-349366	4-TR347	ML-716179	1-50	ZG-716688	1-83
ED-344280	4-D311	ET-349606	4-TR106	ML-716179	2-50	ZG-716688	2-83
ED-344280	4-D312	ET-349606	4-TR206	ML-716180	1-51	ZS-300519	8-12
ED-344280	4-D313	ET-349705	4-TR101	ML-716180	2-51	ZS-320906	8-14
ED-344280	4-D314	ET-349705	4-TR102	MS-715941	2-93	ZS-352120	8-8
ED-344280	4-D310	ET-349705	4-TR103	MZ-364179	8-5	ZS-356389	8-2
ED-344280	4-D316	ET-349705	4-TR104	MZ-364180	8-6	ZS-362242	8-9
ED-344280	4-D317	ET-349705	4-TR105	MZ-711710	1-35	ZS-536488	1-112
ED-344280	4-D323	ET-349705	4-TR107	MZ-711710	2-35	ZS-536488	2-112
ED-349662	4-D315	ET-349705	4-TR110	MZ-712804	1-33	ZS-715982	1-87
ED-357754	4-D319	ET-349705	4-TR111	MZ-712804	2-33	ZS-715982	2-87
ED-357754	4-D320	ET-349705	4-TR120	MZ-712808	1-39	ZS-716203	1-88
ED-364194	5-D407	ET-349705	4-TR121	MZ-712808	2-39	ZS-716203	2-88
ED-364194	5-D408	ET-349705	4-TR122	MZ-712813	1-47	ZS-716204	1-89
ED-364194	5-D412	ET-349705	4-TR123	MZ-712813	2-47	ZS-716204	2-89
ED-364194	5-D413	ET-349705	4-TR201	MZ-712814	1-48	ZS-716576	1-118
ED-364194	5-D401	ET-349705	4-TR202	MZ-712814	2-48	ZS-716576	2-118
ED-364194	5-D402	ET-349705	4-TR125	MZ-716171	1-26	ZS-749293	1-113
ED-364196	5-D403	ET-349705	4-TR204	MZ-716171	2-26	ZS-749293	1-114
ED-364197	5-D409	ET-349705	4-TR203	MZ-716577	1-60	ZS-749293	2-113
ED-364197	5-D410	ET-349705	4-TR205	MZ-716577	2-60	ZS-749293	2-114
ED-364197	5-D411	ET-349705	4-TR210	MZ-749256	1-34	ZW-413188	8-13
ED-364197	5-D404	ET-349705	4-TR211	MZ-749256	2-34	ZW-716181	1-52
ED-364197	5-D405	ET-349705	4-TR220	SA-202118	8-1	ZW-716181	2-52
ED-364197	5-D406	ET-349705	4-TR207	SB-716178	1-41	ZW-716206	1-101
EF-321264	4-F1B	ET-349705	4-TR222	SB-716178	2-41	ZW-716206	2-101
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EH-364198	4-FL201	ET-349705	4-TR326	SK-364114	9-3		
EI-337228	4-IC303	ET-349705	4-TR343	SK-364115A	9-5		
EI-347634	4-IC302	ET-354083	4-TR351	SK-364115B	9-5-B		

ABBREVIATIONS FOR SERVICE MANUAL (CASSETTE)

Abbreviation	Explanation	Abbreviation	Explanation
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi PleX
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Tuning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPsTan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord (RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF (or F.FWD)	Fast Forward	SIG	SIGnal
FLD	FLuorescent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitining Diode	X'TAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

AKAI ELECTRIC CO., LTD.
12-14, 2-Chome, Higashi-Kojiya, Ohta-Ku, Tokyo, Japan
TEL Tokyo (742) 5111 CABLE HIFIAKAI TOKYO TELEX J26261
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MODEL HX-A351W

SCHEMATIC DIAGRAM AND PC BOARDS

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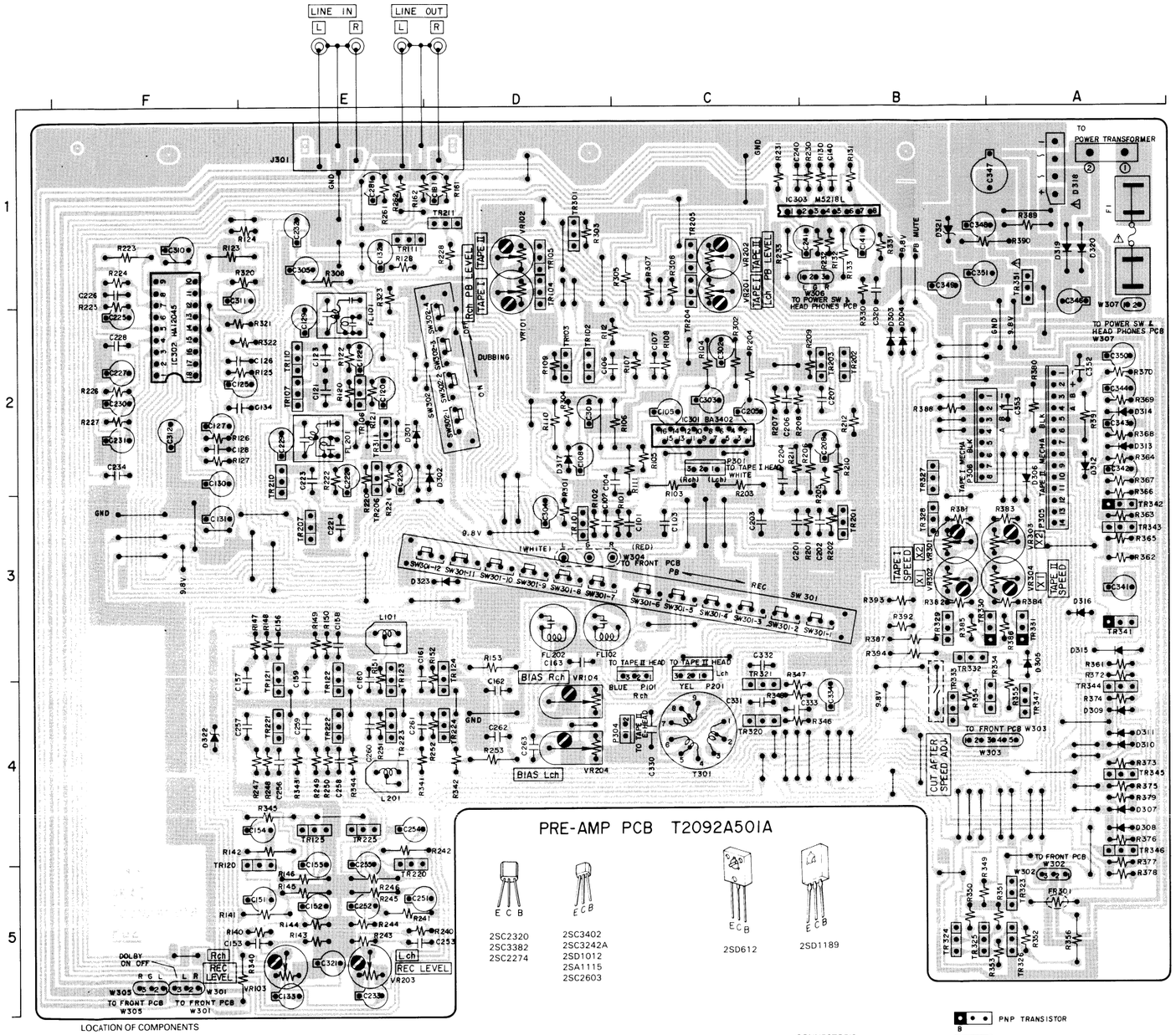


PRE-AMP PCB T2092A501A

2SC2320
2SC3382
2SC2274

2SC3402
2SC3242A
2SD1012
2SA1115
2SC2603

2SD612

2SD1189

PNP TRANSISTOR

NPN TRANSISTOR

LOCATION OF COMPONENTS

IC'S

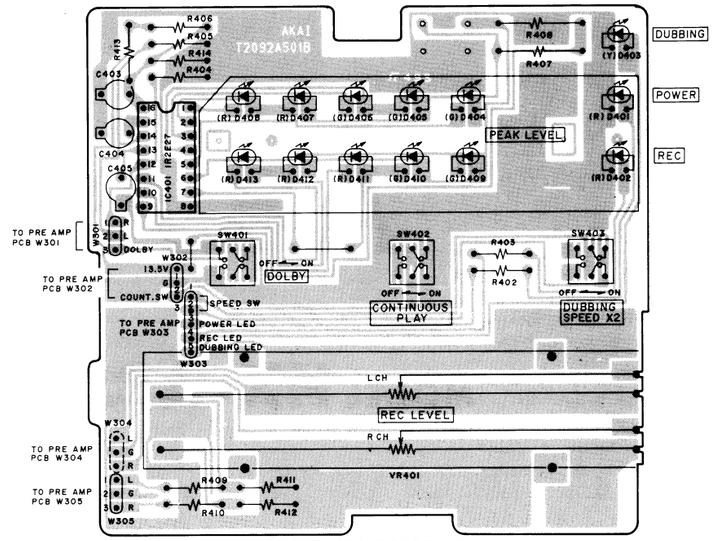
IC301 ..... C2
IC302 ..... F2
IC303 ..... B1

TR'S

TR101 ..... D3
TR102 ..... D2
TR103 ..... D2
TR104 ..... D1
TR105 ..... D1
TR106 ..... E2
TR107 ..... E2
TR110 ..... E2
TR111 ..... E1
TR120 ..... E5
TR121 ..... E3-4
TR122 ..... E3-4
TR123 ..... E3-4
TR124 ..... D3-4
TR125 ..... E4
TR201 ..... B3
TR202 ..... B2
TR203 ..... B2
TR204 ..... C1
TR205 ..... C1
TR206 ..... E2
TR207 ..... E3
TR210 ..... E2
TR211 ..... D1
TR220 ..... E5
TR221 ..... E4
TR222 ..... E4
TR223 ..... E4
TR224 ..... B4
TR225 ..... E4
TR301 ..... D1
TR311 ..... E2
TR320 ..... C4
TR321 ..... C4
TR323 ..... A5
TR324 ..... B5
TR325 ..... B5
TR326 ..... A5
TR327 ..... B2
TR328 ..... B3
TR329 ..... B3
TR330 ..... B3
TR331 ..... A3
TR332 ..... B3
TR333 ..... B4
TR334 ..... A4
TR341 ..... A3
TR342 ..... A3
TR343 ..... A3
TR344 ..... A4
TR345 ..... A4
TR346 ..... A4
TR347 ..... A4
TR351 ..... A1

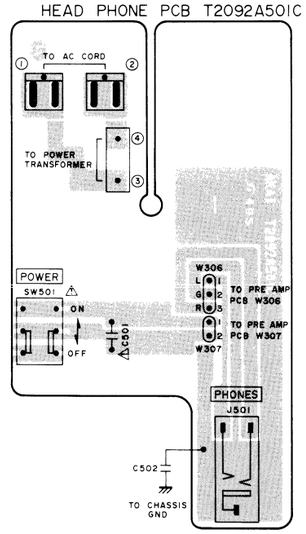
CONNECTOR'S

P101 ..... C1
P201 ..... C1
P301 ..... C2
P304 ..... C4
P305 ..... A2
P306 ..... A2



FRONT PCB T2092A501B

POWER SW & HEAD PHONE PCB T2092A501C

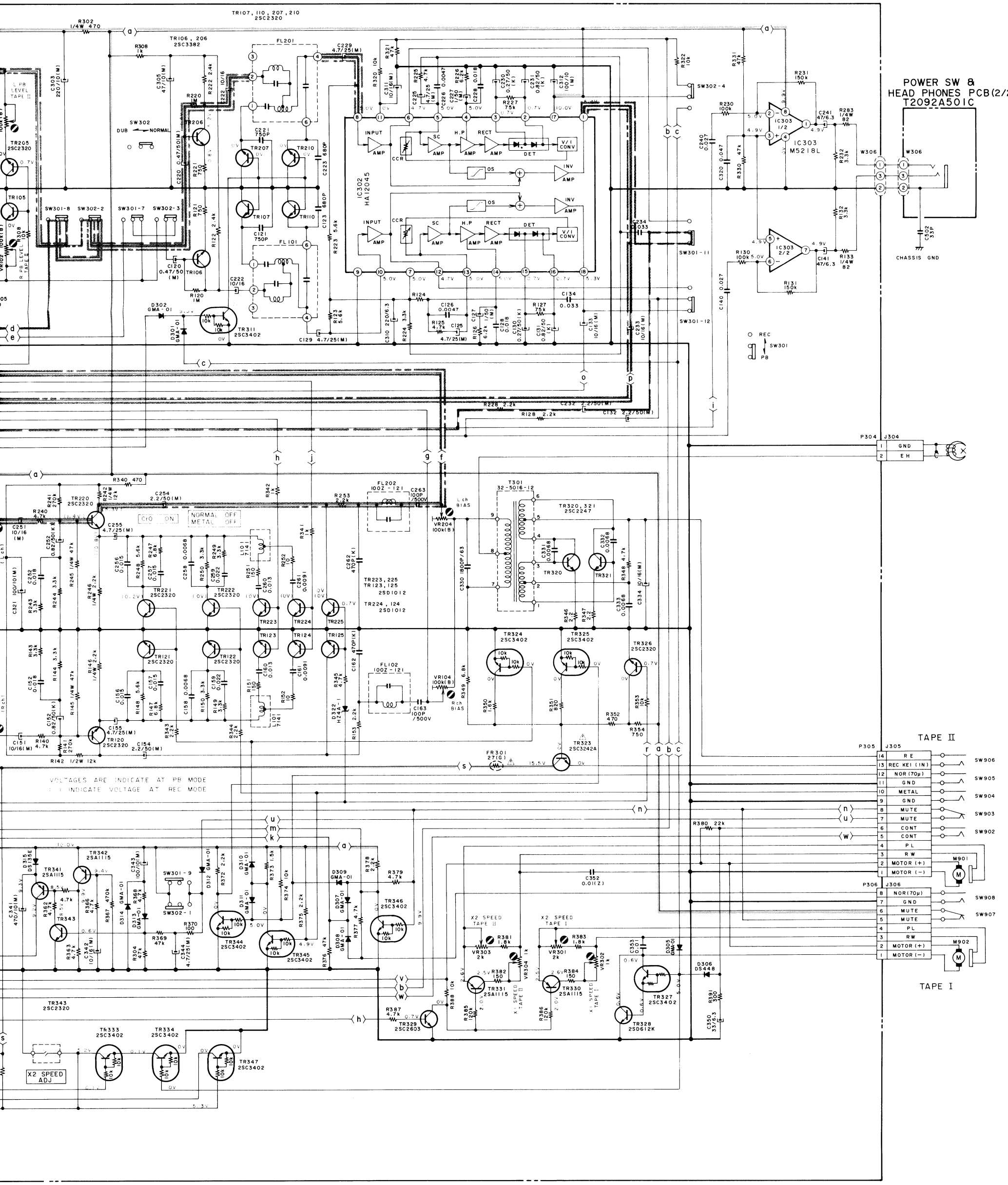


WARNING :⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT :⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

HX-A351W

TAPE I
Lch
P.B HEAD
Rch
TAPE II
Lch
REC/P.B HEAD
Rch
P301
Lch
GND
Rch
P.B
REC
GND
SW301
REC
PB
SW301-1
SW301-2
SW301-3
SW301-4
SW301-5
SW301-6
IC301
BA3402
Vcc
BIAS
GND
SW
TR201
2SC2320
TR101
2SC2320
TR102
TR103
TR104
TR105
TR202
2SC2320
TR203
2SC2320
TR204
2SC2320
TR205
2SC2320
TR102 to 105
2SC2320
TR106 , 206
2SC3382
TR106
TR301
2SC3402
D317 GMA-01
D303 GMA-01
D304 GMA-01
D302 GMA-01
D301 GMA-01
SW302
DUB
NORMAL
SW301-8
SW302-2
SW301-7
SW302-3
SW501
T901
T2088
POWER SW &
HEAD PHONE PCB(1/2)
T2092A501C
J301
LINE OUT
Lch
Rch
LINE IN
Lch
Rch
W307
POWER SW &
HEAD PHONE PCB(1/2)
T2092A501C
T901
T2088U
BLU 240V
WHT 220V
YLW 120V
BRN 110V
ORG
ORG
RED 0V
SW901
VOLTAGE SELECTOR
D318 DBA10B
TR351
2SD1189
D319 DS135E
D320 DS135E
D321 HZ11L-B1
TR211
2SC2320
TR111
2SC2320
TR221
2SC2320
TR121
2SC2320
TR120
2SC2320
TR343
2SC2320
TR341
2SA1115
TR342
2SA1115
TR332
2SC2603
TR333
2SC3402
TR334
2SC3402
TR220
2SC2320
SW301-10
SW301-9
SW302-1
X2 SPEED ADJ
VOLTAGES ARE INDICATE AT PB MODE
( ) INDICATE VOLTAGE AT REC MODE
* | FI
C , A | 125V 1.6A
U,E,B,S,V | 250V T1A
DOLBY
OFF ON
SW401
CONT
OFF ON
SW402
DUBBING SPEED
X1 X2
SW403
L CH LEVEL METER
R CH LEVEL METER
D404 , 405 , 406 ----- SLH-56MT3F
D407 , 408 ----- SLH-56YT3F
D409, 410, 411--- SLH-56MT3F
D412, 413------- SLH-56VT3F
IC401
IR2E27
CURRENT REG
POWER
REC
DUB
D401 SLH-56MT3F
D402 SLH-56MT3F
D403 SLH-56YT3F
W303
W302
W301
W305
W304
VR401 50k(A)
REC LEVEL
FRONT PCB T2092A501B
PRE PCB T2092A501A
B(POWER SUPPLY) LINE
REC SIGNAL LINE
P.B SIGNAL LINE
DUBBING SIGNAL LINE



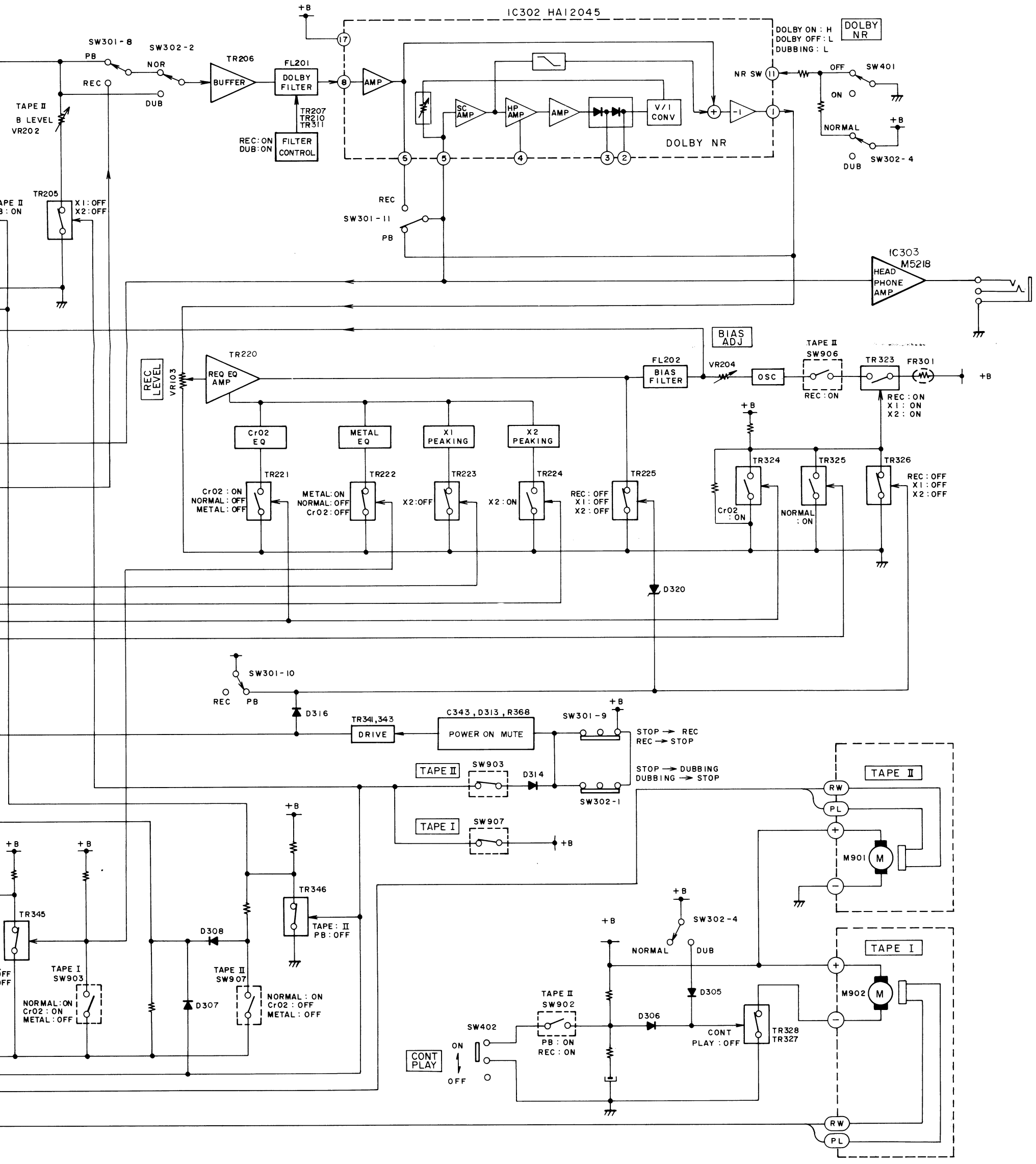
WARNING : △ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT : △ IL INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT.

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

HX-A351W
SCHEMATIC DIAGRAM
NO. 860717A4

TAPE Ⅰ
PB
TR201
X2 : OFF
IC301 BA3402
chA
chB
SW
EQ
Vcc
BIAS
R207
C206
70μ SEC
PB EQ
R208
C207
120μ SEC
PB EQ
TAPE I
PB LEVEL
VR201
TAPE II
B LEVEL
VR202
SW301 - 8
SW302 - 2
PB
NOR
REC
DUB
TAPE Ⅱ
REC/PB
SW301 - 3
SW301 - 2
SW301 - 1
TAPE I 1.2V
TAPE II 2.8V
NORMAL : OFF
CrO2 : ON
METAL : ON
X1 : ON
X2 : ON
TR202
TR203
TR204
TR205
R212
R209
TAPE II
PB : ON
X1 : OFF
X2 : OFF
X2 : ON
TR301
D303
D304
REC LEVEL
VR103
LINE OUT
LINE IN
VR401
MUTE
TR211
POWER ON : ON
POWER OFF : ON
STOP → REC : ON
REC → STOP : ON
STOP → DUB : ON
DUB → STOP : ON
IC401
IR2E27
LEVEL METERE
Rch
TR332
X2 : OFF
REC
+B
TAPE Ⅱ
SPEED
ADJUST
TR331 VR303
VR304
TR329
SW403
TAPE I
SPEED
ADJUST
TR330 VR301
VR302
TR333
REC : ON
SW301-10
TR334
DUB : ON
SW302-4
TR
347
X2 : OFF
DUBBING
SPEED
X2-ON
DUBBING
TR344
NORMAL
: OFF
D310
D311
TR345
TAPE I
SW904
NORMAL : ON
CrO2 : OFF
METAL : OFF
NORMAL
: OFF
CrO2 : OFF
D309
TAPE I
SW903
NORMAL : ON
CrO2 : ON
METAL : OFF
D308
D307
TAPE
SW9
REC
REQ E
AMP



BLOCK DIAGRAM INDICATES LEFT CHANNEL CIRCUIT ONLY

POWER SUPPLY LINE : +B

MODE PB : PLAY BACK
REC : RECORDING
X1 : NORMAL SPEED DUBBING
X2 : DOUBLE SPEED DUBBING

HX-A351W
BLOCK DIAGRAM
No. 860716A(A2)